

WHAT IS CLAIMED IS:

1. A valve, comprising:

a body having an outer surface, an inlet, and an outlet;

at least one nut movably mounted within the body outer surface,

the nut having internal threads and an external cam surface;

a collar mounted within the body inlet and including external threads adapted to mate with the internal threads of the nut;

an elastomeric gland between the body outlet and the collar;

and

a cap having a drive shaft and a cam surface, the cap being movable between locked and released positions, the cam surface positioning the nut threads into engagement with the collar threads when the cap is in the locked position, the gland positioning the nut threads out of engagement with the collar threads when the cap is in the released position.

2. The valve of claim 1, wherein the body outer surface includes first and second apertures and wherein the valve includes first and second nuts movably mounted in the first and second apertures, respectively.

3. The valve of claim 1, wherein the cap is rotationally fixed to, and axial movable relative to, the collar.

4. The valve of claim 3, wherein the cap includes at least one peg  
extending therebetween, the peg being axially slidable within a channel  
provided within the collar.

5. The valve of claim 1, wherein the cap includes an outlet adapted  
to receive a catheter.

6. The valve of claim 1, wherein the body includes an inlet adapted  
to receive a catheter.

7. The valve of claim 1, wherein the cap includes an inwardly  
directed lip adapted to slide between a flange and a shoulder provided in  
spaced relation on the body.

8. The valve of claim 1, wherein the gland is an elastomeric  
cylinder.

9. The valve of claim 1, wherein the gland includes a passive  
valve element.

10. The valve of claim 9, wherein the passive valve element is a  
web of elastomeric material extending across the gland, the web including a  
slit therethrough.



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11. The valve of claim 1, further including a shuttle element adapted to move between open and closed positions, the shuttle element holding the passive valve element open when in the open position, the passive valve element being normally in the closed position.

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12. The valve of claim 11, wherein the shuttle includes a central conduit adapted to hold the passive valve element open when the shuttle is depressed into the cap.

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13. A fluid management system, comprising:  
an injection device;  
a medical device in fluid communication with the injection  
device; and  
a valve operatively associated with the medical device, the valve  
including a mechanism for slidably releasing opening the medical device.

14. The fluid management system of claim 13, wherein the injection  
device is a syringe and the medical device is a catheter.

15. The fluid management system of claim 14, wherein the valve  
further includes a mechanism for threadably closing the catheter.

16. The fluid management system of claim 14, wherein the valve  
includes an elastomeric gland adapted to sealingly compress around the  
catheter.

17. The fluid management system of claim 16, wherein the valve  
includes a cap slidable relative to a body, a threaded collar, and a threaded  
nut, sliding of the cap relative to the body allowing the threaded collar and nut  
to disengage and the gland to decompress.

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18. The fluid management system of claim 14, further including a y-adaptor between the catheter and the syringe, the valve being connected to the y-adaptor.

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19. A method of opening and closing a conduit, comprising:  
positioning a valve about the conduit;  
compressing a gland of the valve around an outer surface of the  
conduit by rotating the valve; and  
decompressing the gland of the valve by sliding a first member  
of the valve relative to a second member of the valve.

20. The method of claim 19, wherein the valve includes a collar  
threadably associated with the body, the collar having a drive end proximate a  
gland of the body, the gland being between the drive end and the gland, and  
wherein the compressing step is performed by rotating the collar relative to  
the body in a first direction.

21. The method of claim 20, wherein the valve further includes a  
movable nut mounted within the body and a cap rotationally fixed to the collar,  
wherein the cap and nut include complementary cam surfaces, and wherein  
the decompressing step is performed by sliding the cap relative to the nut in a  
first direction.

22. The method of claim 21, wherein the sliding step in the first  
direction is performed towards the body.

23. The method of claim 20, wherein the decompressing step is performed by rotating the collar relative to the body in a second direction, the second direction being opposite to the first direction.

24. The method of claim 19, wherein the conduit is a catheter.

25. The method of claim 24, further including the step of inserting a device through the catheter.

26. The method of claim 24, wherein the gland includes a web having a reclosable slit therein, and further including the step of opening the slit prior to the inserting step.

27. The method of claim 24, wherein the valve further includes a shuttle, the shuttle having a tube, and wherein the opening step is performed by pushing the shuttle tube through the slit.

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28. A hemostatic valve, comprising:

a body adapted to be positioned about a conduit;

a gland proximate the body;

a gland compressor adapted to compress the gland around the conduit and against the body, the gland compressor being operable in a quick open mode and a secure close mode.

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29. The valve of claim 28, further including at least one nut slidably

mounted within the body, a collar adapted to be threadably attached to the

nut, and a cap rotationally fixed and axially slidable relative to the collar, the

cap being slid relative to the collar when in the quick release mode, the cap

being rotated when in the attachment mode.

30. The valve of claim 29, further including a shuttle movably

mounted to the cap wherein the gland includes a slitted web.



31. A method of opening and closing a conduit, comprising:

positioning a valve about the conduit, the valve including a body,  
a movable nut within the body, a collar adapted to be threaded to the nut, a  
cap rotationally fixed to and axially slidable relative to the collar, and a gland  
positioned between the collar and the body;

rotating the cap and collar, rotation of the cap and collar causing  
the gland to be compressed around the conduit;

sliding the cap towards the body, sliding of the cap causing the  
nut and collar to disengage and the conduit to open.

32. The method of claim 31, further including the steps of inserting  
a shuttle tube through an inlet in the cap and through a slit in the gland, and  
inserting a device through the shuttle tube.

33. A valve, comprising:

a body adapted to be positioned about a conduit;

a gland proximate the body, the gland including a slit;

a gland compressor adapted to compress the gland around the conduit and against the body; and

a shuttle, the shuttle including a tube adapted to be slid through the gland slit.

34. The valve of claim 33, further including at least one nut slidably mounted within the body, a collar adapted to be threadably attached to the nut, and a cap rotationally fixed and axially slidable relative to the collar, the cap collar and body each including bores therethrough, the shuttle tube connecting the cap, collar, and body bores when slid through the gland slit.

35. The valve of claim 33, wherein the nut and cap include complementary cam surfaces.

36. The valve of claim 33, wherein at least one device shaft extends from the cap and into a channel provided within the collar.

37. A hemostatic valve, comprising:

an elastomeric member adapted to surround a conduit;

an actuator proximate the elastomeric gland, movement of the actuator in a first direction compressing the elastomeric member and closing the conduit, movement of the actuator in a second direction decompressing the elastomeric member and opening the conduit; and

means for threadably and slidably moving the actuator in the first and second directions.

38. The hemostatic valve of claim 37, wherein the means for moving includes a cap threadably associated with the actuator.

39. The hemostatic valve of claim 38, wherein the means for moving includes a cap slidably associated with the actuator.

40. The hemostatic valve of claim 38, wherein the means for moving further includes a nut threadably engaged with the actuator and slidably engaged with the cap.

41. The hemostatic valve of claim 40, wherein the cap and nut include cam surfaces.